

Title (en)

METHOD FOR IMPROVING THE AERODYNAMIC PERFORMANCE OF BLADES OF A HOVERING ROTORCRAFT BY MOVEMENT OF THE LEADING EDGE OF THE AERODYNAMIC PROFILES OF THESE BLADES

Title (de)

VERFAHREN ZUR VERBESSERUNG DES AERODYNAMISCHEN VERHALTENS DER BLÄTTER EINES DREHFLÜGELFLUGZEUGS IM SCHWEBEFLUG DURCH VERSCHIEBUNG DER VORDERKANTE DER AERODYNAMISCHEN PROFILE DIESER BLÄTTER

Title (fr)

METHODE D'AMELIORATION DU COMPORTEMENT AERODYNAMIQUE DE PALES D'UN GIRAVION EN VOL STATIONNAIRE PAR UN DEPLACEMENT DU BORD D'ATTAQUE DES PROFILS AERODYNAMIQUES DE CES PALES

Publication

EP 3984883 B1 20230215 (FR)

Application

EP 21197251 A 20210916

Priority

FR 2010434 A 20201013

Abstract (en)

[origin: US2022111955A1] A method for improving a blade in an end zone of the blade, spanwise along the blade, and such an improved blade and a rotor comprising the improved blades. The leading edge of the aerodynamic profiles situated in the end zone is shifted from the upper surface half-profile towards the lower surface half-profile, then the leading edge sections of the two half-profiles are modified in order to connect the leading edge to the intermediate sections of the two half-profiles. Next, the blade is manufactured according to the modified aerodynamic profiles. Consequently, the negative camber of the aerodynamic profiles of the blade is thus increased, helping improve the aerodynamic performances of the blade during hovering flight.

IPC 8 full level

B64C 27/467 (2006.01)

CPC (source: EP KR US)

B23P 15/28 (2013.01 - US); **B64C 27/467** (2013.01 - EP KR US); **B64F 5/10** (2016.12 - KR); **B64C 11/18** (2013.01 - EP); **Y02E 10/72** (2013.01 - EP)

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

EP 3984883 A1 20220420; **EP 3984883 B1 20230215**; FR 3115012 A1 20220415; FR 3115012 B1 20220826; KR 102580326 B1 20230918; KR 20220048937 A 20220420; US 11834165 B2 20231205; US 2022111955 A1 20220414

DOCDB simple family (application)

EP 21197251 A 20210916; FR 2010434 A 20201013; KR 20210127409 A 20210927; US 202117477935 A 20210917